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THE

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A BOTANICAL JOURNAL.

'Ως ἐμεγαλύνθη τὰ ἔργα σου, Κύριε!—πάντα ἐν σοφίᾳ ἐποίησας.

ΨΑΛΜ. ργ΄. 24.

Benedicite universa germinantia in terra Domino; laudate et superexaltate Eum in secula.—*Hymn. iii Pueror. v.* 76.

LONDON:

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MR. SPRUCE'S BOTANICAL COLLECTIONS IN SOUTH AMERICA.

The Extensive Collections of BRAZILIAN PLANTS, collected during the long period of about fifteen years, and from an immense extent of that remarkable South American Empire, by Mr. Richard Spruce, are now in part ready, and the remainder are in forward preparation for distribution, to Subscribers and Purchasers; a glance at the statement below of such Sets as are still remaining on hand, and are now ready for delivery, as well as the List of such as are nearly so, will at once convey the best idea of the importance of these most interesting Collections of Brazilian Plants. An extract from one of the latest of Mr. Spruce's letters will also be helpful in forming an opinion of their value.

. . . "The whole collection is perhaps as large as was ever made by a single person, for I can truly say I left nothing ungathered I saw (which was accessible) from the mouth of the Amazon to the shores of the Pacific; and from the cataracts of the Orinoco (north) to latitude 7° south in the Andes of Maynas. I am now busily occupied in separating the LICHENS from the rest of the Cryptogamia; they alone (the Lichens) comprise about 5000 Specimens, including many fine things, especially all the epiphyllous species I could find: the brilliant-coloured yellow and scarlet crustaceous Lichens, which splendidly decorate the trees in some parts of the Amazon, and some handsome Stictæ from the Andes; the MOSSES are far more numerous. You know the passion I always had for this tribe; but the HEPATICÆ are perhaps the most numerous of all; I have also a few epiphyllous FUNGI, and I am now gathering SEA-WEEDS and ZOOPHYTES here. . . ."

Guayaquil, January, 1862.

SETS OF MR. SPRUCE'S BRAZILIAN PLANTS, *now ready*, NAMED.

Set No. 1.—	North Brazilian, number of Species .	1144
	Tarapota (East Peru)	302
	Andes of Ecuador	478
	Total Species . .	1924

☞ The price of this Set No. 1 is £38. 9*s*.

Smaller Sets may also be always had; the number of Species contained in the smallest of the above Collections amounts to about 1100, and the price of it is £22. 3*s*. 6*d*.

SETS OF MR. SPRUCE'S BRAZILIAN PLANTS, which are *in preparation*.

A Capital Set of the ANDINE FLOWERING PLANTS and FERNS, including many fine and entirely new Species, nearly the whole of which are named, and comprise about 1200 Species, price £2. 10*s*. per 100.

A fine Set, about 300 Species, ANDINE and GUAYAQUIL PLANTS.

The various lower Orders of CRYPTOGAMIC PLANTS, of which the price will be £1. 10*s*. per 100 Species.

Any further information about these Plants of Mr. Spruce's may be had of

W. PAMPLIN, BOTANICAL AGENT, 45, FRITH ST., SOHO, LONDON.

[*April*, 1862.]

BOTANICAL LETTERS FROM ARGYLESHIRE.

By James Lothian.

No. III. *An Hour at Machrihanish Bay.*

Sir,—To talk of field botany and botanical excursions in drear December and bleak January is pleasant enough seated beside a cheerful parlour fire, or to look back on excursions made during the long sunny days of July and August, or even to chalk out, in our mind's eye, a series of ramblings when the merry month of May has once more sprinkled our banks and lanes with golden Primroses and blue Violets,—when the beautiful May-tree, the poet's

> "Milk-white thorn that scents the evening gale,"

has again filled the air with its balmy perfume,—when our meadows teem with beauty and verdure, and

> "Daisies and buttercups gladden the sight
> Like treasures of silver and gold;"

the very air thus giving buoyancy to our spirits, and the swiftness of the roe to our feet, giving the botanical wanderer an eye of far keener edge than the most expert detective.

To take the fields however in reality in the midst of a January's pitiless storm is a very different thing, even although having the prospect of being amply rewarded by a full vasculum of Ferns or Mosses, or a choice basketful of *dulse.* But after all, there are days, times, and seasons, which, as we *trudge* on our way on the journey of life where duty leads, often compels us to take the fields during the brumal period of the year; and, if only for a few minutes, it is seldom that the botanist and naturalist will fail to profit by them.

During the Christmas and New-year's holidays, many who, as Cowper says, are immured during the season in the "city's smoke and dusky alley," so often longed for, now escape, for a few days at least, from the vicissitudes of its pent-up atmosphere,—glad, ay glad, even amidst the rigours of a winter's storm, to escape and revisit the valleys and the hills, where the breeze is balm, ever fresh, ever free. Many a youthful student who, during the preceding months, has pored over his studies by the midnight lamp, now, as soon as his instructors have announced in the class-room that he and his colleagues are free for a week or ten

BRITISH MUSEUM

days, then, like the fiery courser, he is at once ready for the road. Thoughts crowd upon him, his spirits are up, and if a Botanist or Naturalist, or a lover of the country sweets and wilds, the moments will seem too long till he is beyond the walls of the city. Such is his buoyancy, that on reaching his lodgings he waits not to eat, scarcely to turn the key in his trunk. He casts his cloak over his shoulders; his knapsack strung, and doffing his blue Balmoral or Glengarry, he is off with the train, with nearly the same rhapsodies in his *noddle,* if not actually repeating the words of the lyric bard when he exclaims—

> "Hurrah, for the highlands, the stern Scottish highlands,
> The home of the Clansman, the brave and the free!"

Whether this may be the train of thoughts of all those youths I shall not particularly affirm, neither does it matter; but this, I know, has been the feeling of one at least on similar occasions.

Many of those youths, as well as others, visit our shores at those seasons of the year; and to those who make the Scottish Land's End their rural retreat during a few winter holidays, I would say, spend an hour, even a solitary hour, if time or weather will not admit of more, at "Machrihanish Bay," a place visited by hundreds during the summer months. I shall not promise you much in an hour; but this I can assure you of, that you shall enjoy the fresh sea-breeze, and moreover a basketful of eatable dulse.

This famed bay is distant five miles from Campbelltown, on the west coast of Cantyre. It is of easy access by an excellent road, firm and level as a bowling-green, which passes through a fertile agricultural district, studded with cottages and homesteads. I may further hint, that on reaching Machrihanish Bay, that should the strong sea-air sharpen the botanist's appetite, some Highland cheer is obtainable at mine host of the "Saltpans Inn" in the vicinity.

Taking for granted that the rambler has made up his mind to visit this locality, leaving Campbelltown by the Southend road, he passes some distilleries and gardens on the left, the Poorhouse and its ground, and the lands of Gallowhill on the right, and in a few minutes more he reaches the hamlet of Witchburn, consisting of a few cottages on either side of the highway, through which a small rill or burn passes, sweeping through a small meadow, discharging itself into the sea behind the town. This hamlet is said to be the birthplace of Burns's Highland Mary; her parents' cottage, rebuilt, is still pointed out. By ascending to the top of White Hill or the Gallow Hill, two conical hills in the neighbourhood, some beautiful views can be obtained. A considerable sprinkling of wood and hedgerows at this point add much to the beauty of the locality. Leaving this hamlet and the Whinnyhill in the rear, the rambler soon passes the farms of Low Knockrioch and Strath,—localities, by the way, of which I may have something to say perhaps in another letter,—and reaches the village of Drumlemble, chiefly inhabited by the miners employed at the Drumlemble colliery close by the village. Here there has been erected, some two years ago, an excellent school in connection with the Established Church; and although within the bounds of the parish, a missionary and the ministers of the parish hold meetings on Sabbath evenings for the aged and infirm of the miners in the schoolhouse. Passing Drumlemble, the rambler soon reaches Killkeran, where there is an ancient burying-ground, containing some curious stones and inscriptions, and the ruins of an old chapel, presenting the same style of architecture that all those chapels common on the west coast of Scotland present. While musing on this sequestered spot for a moment, reflecting on all that tradition and local history relates of this chapel and its saint, the eye soon detects a beautiful variety of *Hedera Helix palmata* clothing a part of those old walls, adding much to the charms of the spot; but a bitter bleak day in January is not the time to stand long musing in the fields; the cold air and hazy atmosphere make the pedestrian go ahead. Turning his face to the west, rising on his left are the Sossel hills, forming the northern extremity of the Moile range. In the extreme distance on the right are Ballinaglaic and Largie hills, and a considerable part of the west shores of Cantyre. The islands of Gigha and Cura, with the Forest mountains of South Knapdale, towering their lofty summits to the grey skies. Immediately in front are Islay and Jura, and the broad blue Sound separating them from the mainland. Proceeding a few yards further on, he comes in sight of the small village of Saltpans; on his right, at this point, is the Bay of Machrihanish, its finely sweeping sea-margin stretching away northwards towards West Ports,—a locality, I may here mention, will of itself form the subject of a botanical excursion as the season advances. It is a locality that will amply repay an excursion to it.

This bay presents a magnificent beach of fine pebbly sand and shells, backed up in the rear by great hills of sand covered with Sea Bent, *Arundo arenaria;* and leaving the public road a few more paces enables the botanical rambler to place his foot on the shores of Machrihanish, which, if it has happened to be the first time that he has visited it, he will in all likelihood stand gazing for a moment on the vast mountain waves as they roll inwards towards where he stands, with their snowy crests and phosphorescent shades. Presently, however, other objects attract his attention: vast heaps of drifted seaweed line the tide-mark: to search these heaps he now proceeds. Some are decayed, and have evidently been there since the last storm, but the greater portion are fresh, sent in by the preceding day's gale, and a considerable quantity left by the last tide. He turns and returns the mass, from which he picks up specimens of *Fucus nodosus, Fucus vesiculosus, Padina pavonia, Chylocladia articulata, Corallina vulgaris, Fucus serratus, Delesseria Hypoglossum, Delesseria sanguinea, Ulva latissima, Plocamium coccineum, Dictyota dichotoma, Bryopsis plumosa, Chondrus crispus, Flustra foliacea, Cladophora arctica, Iridæa edulis, Porphyra laciniata, Ectocarpus siliculosus, Laminaria digitata,* with its roots like great claws, eaten much on the coast by youngsters, as well as the dulse; *Nitophyllum punctatum, Ptilota plumosa, Rhodymenia bifida, Enteromorpha compressa, Zostera marina, Sertularia filicula,* with many others which memory fails to furnish. Many years ago, some distance northwards from this locality, on the same coast, I picked up a most beautiful zoophyte: I did not know it, and transmitted the same to the late Dr. Johnston, Berwick-upon-Tweed, who very kindly returned it to me named, with the additional remark that I was to take care of it, being one of the rarest of the British zoophytes; but alas! by the time it reached me, the ponderous stamp of some post-office official had crushed it into dust.

But a lurid glare of sunshine gilds the dark frowning headlands of Antrim; and to the far west, beyond the entrance to Lochfoyle towards Sligo, the Isle of Rathlin, lying low, skirting the Irish coast, is seen close at hand, in the peculiar transparency cast over it by the mocking glare of sunshine, invariable precursor of a coming storm. Our botanist, who has some knowledge of meteorology, sees it and guesses what is to follow, and strapping his vasculum over his shoulder, and with staff in hand, he bids adieu to Machrihanish bay, but not without feeling with Byron that—

> "There is a pleasure in the pathless woods,
> There is a rapture on the lonely shore,
> There is society where none intrudes
> By the deep sea, and music in its roar."

Should time and weather permit, if the rambler steps off the highway some two hundred yards at the road leading towards Chiskom House, and following the course of the lead supplying the dye-works with water, he will meet with some Potamogetons, *Ranunculus aquatilis* abundantly, with other pretty aquatic plants. But I must for the present refrain, until I have an opportunity of directing my botanical friends to the ferny recesses of Jirfiryn's Glen; its dusky banks even now glowing in golden spots in the distance by the first blossoms of the Whin (*Ulex europæus*), as Wilson says:—

> "A glimmering glow, like the breast of the deep,
> When the billows scarce heave in the calmness of morn."

Yes! cold, cloudy, and bleak as the day has pended over our Botanical Wanderings, that same golden-flowered shrub meeting us at almost every step does even more than this: it tells us that—

> "The finger of God hath touched the earth,
> And it starts from slumber in smiling mirth."

A COMPARATIVE LIST OF BRITISH PLANTS.

Showing the different Names and Species adopted in the four best-known English Works.

The order here followed is that of Babington's 'Manual' (ed. 4,) from which the names are in the first instance taken, omitting the species enclosed in brackets.

BABINGTON.	LOND. CAT.	HOOKER & ARNOTT.	BENTHAM.
Hieracium boreale.	*H. boreale.*	*H. boreale.*	*H. sabaudum.*
Lobelia Dortmanna.	L. Dortmanna.	L. Dortmanna.	L. Dortmanni.
Lobelia urens.	L. urens.	L. urens.	L. urens.
Jasione montana.	J. montana.	J. montana.	J. montana.
Phyteuma orbiculare.	P. orbiculare.	P. orbiculare.	P. orbiculare.

BABINGTON.	LOND. CAT.	HOOKER & ARNOTT.	BENTHAM.
Phyteuma spicatum.	P. spicatum.	P. spicatum.	P. spicatum.
Campanula glomerata.	C. glomerata.	C. glomerata.	C. glomerata.
Campanula latifolia.	C. latifolia.	C. latifolia.	C. latifolia.
Campanula Trachelium.	C. Trachelium.	C. Trachelium.	C. Trachelium.
Campanula rapunculoides.	C. rapunculoides.	C. rapunculoides.	C. rapunculoides.
Campanula rotundifolia.	C. rotundifolia.	C. rotundifolia.	C. rotundifolia.
Campanula persicifolia.	C. persicifolia.	C. persicifolia.	(Not established.)
Campanula Rapunculus.	C. Rapunculus.	C. Rapunculus.	C. Rapunculus.
Campanula patula.	C. patula.	C. patula.	C. patula.
Specularia hybrida.	*S. hybrida.*	*Campanula hybrida.*	*Campanula hybrida.*
Wahlenbergia hederacea.	*W. hederacea.*	*Campanula hederacea.*	*Campanula hederacea.*
Arbutus Unedo.	A. Unedo.	A. Unedo.	A. Unedo.
Arctostaphylos alpina.	*Arbutus alpina.*	*Arctostaphylus alpina.*	*Arctostaphylos alpina.*
Arctostaphylos Uva-ursi.	*Arbutus U.-ursi.*	*Arctostaphylus U.-ursi.*	*Arctostaphylos U.-ursi.*
Andromeda polifolia.	A. polifolia.	A. polifolia.	A. polifolia.
Calluna vulgaris.	*C. vulgaris.*	*C. vulgaris.*	*Erica vulgaris.*
Erica Tetralix.	E. Tetralix.	E. Tetralix.	E. Tetralix.
Erica Mackaiana.	*E. Tetralix.*	*E. Mackayi.*	*E. Tetralix.*
Erica cinerea.	E. cinerea.	E. cinerea.	E. cinerea.
Erica ciliaris.	E. ciliaris.	E. ciliaris.	E. ciliaris.
Erica mediterranea.	*E. mediterranea.*	*E. mediterranea.*	*E. carnea.*
Erica vagans.	E. vagans.	E. vagaus.	E. vagans.
Phyllodoce cœrulea.	*Menziesia cœrul.*	*Menziesia cœrulea.*	*Menziesia cœrulea.*
Dabeocia polifolia.	*Menziesia polif.*	*Menziesia polifolia.*	*Menziesia polifolia.*
Azalea procumbens.	*A. procumbens.*	*A. procumbens.*	*Loiseleuria procumbens.*
Vaccinium Myrtillus.	V. Myrtillus.	V. Myrtillus.	V. Myrtillus.
Vaccinium uliginosum.	V. uliginosum.	V. uliginosum.	V. uliginosum.
Vaccinium Vitis-idæa.	V. Vitis-idæa.	V. Vitis-idæa.	V. Vitis-idæa.
Vaccinium oxycoccos.	V. oxycoccos.	V. Oxycoccos.	V. Oxycoccos.
Pyrola rotundifolia.	P. rotundifolia.	P. rotundifolia.	P. rotundifolia.
Pyrola media.	P. media.	P. media.	P. media.
Pyrola minor.	P. minor.	P. minor.	P. minor.
Pyrola secunda.	P. secunda.	P. secunda.	P. secunda.
Moneses grandiflora.	*Pyrola grandifl.*	*Moneses grandiflora.*	*Pyrola uniflora.*
Monotropa Hypopitys.	M. Hypopitys.	M. Hypopitys.	M. Hypopitys.
Ilex Aquifolium.	I. Aquifolium.	I. Aquifolium.	I. Aquifolium.
Ligustrum vulgare.	L. vulgare.	L. vulgare.	L. vulgare.
Fraxinus excelsior.	F. excelsior.	F. excelsior.	F. excelsior.
Vinca minor.	V. minor.	V. minor.	V. minor.
Vinca major.	V. major.	V. major.	V. major.
Chlora perfoliata.	C. perfoliata.	C. perfoliata.	C. perfoliata.
Erythræa pulchella.	*E. Centaurium.*	*E. pulchella.*	*E. Centaurium.*
Erythræa Centaurium.	E. Centaurium.	E. Centaurium.	E. Centaurium.
Erythræa latifolia.	*E. Centaurium.*	*E. latifolia.*	*E Centaurium.*
Erythræa littoralis.	*E. Centaurium.*	*E. linarifolia.*	*E. Centaurium.*
Cicendia filiformis.	C. filiformis.	C. filiformis.	C. filiformis.
Gentiana Amarella.	G. Amarella.	G. Amarella.	G. Amarella.

BABINGTON.	LOND. CAT.	HOOKER & ARNOTT.	BENTHAM.
Gentiana campestris.	G. campestris.	G. campestris.	G. campestris.
Gentiana nivalis.	G. nivalis.	G. nivalis.	G. nivalis.
Gentiana verna.	G. verna.	G. verna.	G. verna.
Gentiana Pneumonanthe.	G. Pneumonanthe.	G. Pneumonanthe.	G. Pneumonanthe.
Villarsia nymphæoides.	*V. nymphæoides.*	*V. nymphæoides.*	*Limnanthemum ny.*
Menyanthes trifoliata.	M. trifoliata.	M. trifoliata.	M. trifoliata.
Polemonium cœruleum.	P. cœruleum.	P. cœruleum.	P. cœruleum.
Convolvulus arvensis.	C. arvensis.	C. arvensis.	C. arvensis.
Convolvulus sepium.	*Convolv. sepium.*	*Calystegia sepium.*	*Convolvulus sepium.*
Convolvulus Soldanella.	*Convolv. Soldan.*	*Calystegia Soldan.*	*Convolv. Soldanella.*
Cuscuta europæa.	C. europæa.	C. europæa.	C. europæa.
Cuscuta Epilinum.	C. Epilinum.	C. Epilinum.	C. Epilinum.
Cuscuta Epithymum.	C. Epithymum.	C. Epithymum.	C. Epithymum.
Cuscuta Trifolii.	*C. Trifolii.*	*C. Trifolii.*	*C. sylvaticum.*
Asperugo procumbens.	A. procumbens.	A. procumbens.	A. procumbens.
Cynoglossum officinale.	C. officinale.	C. officinale.	C. officinale.
Cynoglossum montanum.	*C. sylvaticum.*	*C. sylvaticum.*	*C. montanum.*
Borago officinalis.	B. officinalis.	B. officinalis.	B. officinalis.
Anchusa officinalis.	A. officinalis.	A. officinalis.	A. officinalis.
Anchusa sempervirens.	A. sempervirens.	A. sempervirens.	A. sempervirens.
Lycopsis arvensis.	L. arvensis.	L. arvensis.	L. arvensis.
Symphytum officinale.	S. officinale.	S. officinale.	S. officinale.
Symphytum tuberosum.	S. tuberosum.	S. tuberosum.	S. tuberosum.
Echium vulgare.	E. vulgare.	E. vulgare.	E. vulgare.
Pulmonaria officinalis.	P. officinalis.	P. officinalis.	P. officinalis.
Pulmonaria angustifolia.	*P. angustifolia.*	*P. angustifolia.*	*Pulmon. officinalis.*
Mertensia maritima.	M. maritima.	M. maritima.	M. maritima.
Lithospermum officinale.	L. officinale.	L. officinale.	L. officinale.
Lith. purpureo-cœruleum.	L. purpureo-cœ.	L. purpureo-cœrul.	L. purpureo-cœruleum.
Lithospermum arvense.	L. arvense.	L. arvense.	L. arvense.
Myosotis palustris.	M. palustris.	M. palustris.	M. palustris.
Myosotis repens.	*M. repens.*	*M. repens.*	*M. palustris.*
Myosotis cæspitosa.	*M. cæspitosa.*	*M. cæspitosa.*	*M. palustris.*
Myosotis alpestris.	*M. alpestris.*	*M. alpestris.*	*M. sylvatica.*
Myosotis sylvatica.	M. sylvatica.	M. sylvatica.	M. sylvatica.
Myosotis arvensis.	M. arvensis.	M. arvensis.	M. arvensis.
Myosotis collina.	M. collina.	M. collina.	M. collina.
Myosotis versicolor.	M. versicolor.	M. versicolor.	M. versicolor.
Solanum nigrum.	S. nigrum.	S. nigrum.	S. nigrum.
Solanum Dulcamara.	S. Dulcamara.	S. Dulcamara.	S. Dulcamara.
Atropa Belladonna.	A. Belladonna.	A. Belladonna.	A. Belladonna.
Hyoscyamus niger.	H. niger.	H. niger.	H. niger.
Datura Stramonium.	(Excluded.)	D. Stramonium.	D. Stramonium.
Orobanche Rapum.	*O. major.*	*O. major.*	*O. major.*
Orobanche rubra.	O. rubra.	O. rubra.	O. rubra.
Orobanche caryophyllacea.	O. caryophyll.	O. caryophyllacea.	O. caryophyllacea.
Orobanche elatior.	O. elatior.	O. elatior.	O. elatior.

BABINGTON.	LOND. CAT.	HOOKER & ARNOTT.	BENTHAM.
Orobanche Picridis.	*O. Picridis.*	*O. Picridis.*	*O. minor.*
Orobanche Hederæ.	*O. Hederæ.*	*O. Hederæ.*	*O. minor.*
Orobanche minor.	O. minor.	O. minor.	*O. minor.*
Orobanche amethystea.	*O. amethystea.*	*Orobanche amethystea.*	O. minor.
Orobanche cœrulea.	O. cœrulea.	O. cœrulea.	O. cœrulea.
Lathræa squamaria.	L. squamaria.	L. squamaria.	L. squamaria.
Verbascum Thapsus.	V. Thapsus.	V. Thapsus.	V. Thapsus.
Verbascum Lychnitis.	V. Lychnitis.	V. Lychnitis.	V. Lychnitis.
Verbascum pulverulentum.	*V. floccosum.*	*V. pulverulentum.*	*V. pulverulentum.*
Verbascum nigrum.	V. nigrum.	V. nigrum.	V. nigrum.
Verbascum Blattaria.	V. Blattaria.	V. Blattaria.	V. Blattaria.
Verbascum virgatum.	V. virgatum.	V. virgatum.	V. virgatum.
Digitalis purpurea.	D. purpurea.	D. purpurea.	D. purpurea.
Antirrhinum majus.	A. majus.	A. majus.	A. majus.
Antirrhinum Orontium.	A. Orontium.	A. Orontium.	A. Orontium.
Linaria Cymbalaria.	L. Cymbalaria.	L. Cymbalaria.	L. Cymbalaria.
Linaria Elatine.	L. Elatine.	L. Elatine.	L. Elatine.
Linaria spuria.	L. spuria.	L. spuria.	L. spuria.
Linaria minor.	L. minor.	L. minor.	L. minor.
Linaria supina.	(Excluded.)	L. supina.	L. supina.
Linaria repens.	L. repens.	L. repens.	L. repens.
Linaria vulgaris.	L. vulgaris.	L. vulgaris.	L. vulgaris.
Scrophularia nodosa.	S. nodosa.	S. nodosa.	S. nodosa.
Scrophularia Ehrharti.	*S. Ehrharti.*	*S. Ehrharti.*	*S. aquatica.*
Scrophularia aquatica.	S. aquatica.	S. aquatica.	S. aquatica.
Scrophularia Scorodonia.	S. Scorodonia.	S. Scorodonia.	S. Scorodonia.
Scrophularia vernalis.	S. vernalis.	S. vernalis.	S. vernalis.
Limosella aquatica.	L. aquatica.	L. aquatica.	L. aquatica.
Melampyrum cristatum.	M. cristatum.	M. cristatum.	M. cristatum.
Melampyrum arvense.	M. arvense.	M. arvense.	M. arvense.
Melampyrum pratense.	M. pratense.	M. pratense.	M. pratense.
Melampyrum sylvaticum.	M. sylvaticum.	M. sylvaticum.	M. sylvaticum.
Pedicularis palustris.	P. palustris.	P. palustris.	P. palustris.
Pedicularis palustris.	P. sylvatica.	P. sylvatica.	P. sylvatica.
Rhinanthus Crista-galli.	R. Crista-galli.	R. Crista-Galli.	R. Crista-galli.
Rhinanthus major.	*P. Crista-galli.*	*P. angustifolius.*	*P. Crista-galli.*
Bartsia alpina.	B. alpina.	B. alpina.	B. alpina.
Eufragia viscosa.	*Bartsia viscosa.*	*Bartsia viscosa.*	*Bartsia viscosa.*
Euphrasia officinalis.	E. officinalis.	E. officinalis.	E. officinalis.
Euphrasia Odontites.	*Bart. Odontites.*	*Bartsia Odontites.*	*Bartsia Odontites.*
Sibthorpia europæa.	S. europæa.	S. europæa.	S. europæa.
Veronica scutellata.	V. scutellata.	V. scutellata.	V. scutellata.
Veronica Anagallis.	V. Anagallis.	V. Anagallis.	V. Anagallis.
Veronica Beccabunga.	V. Beccabunga.	V. Beccabunga.	V. Beccabunga.
Veronica Chamædrys.	V. Chamædrys.	V. Chamædrys.	V. Chamædrys.
Veronica montana.	V. montana.	V. montana.	V. montana.
Veronica officinalis.	V. officinalis.	V. officinalis.	V. officinalis.

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Veronica spicata.	V. spicata.	V. spicata.	V. spicata.
Veronica saxatilis.	V. saxatilis.	V. saxatilis.	V. saxatilis.
Veronica alpina.	V. alpina.	V. alpina.	V. alpina.
Veronica serpyllifolia.	V. serpyllifolia.	V. serpyllifolia.	V. serpyllifolia.
Veronica arvensis.	V. arvensis.	V. arvensis.	V. arvensis.
Veronica verna.	V. verna.	V. verna.	V. verna.
Veronica triphyllos.	V. triphyllos.	V. triphyllos.	V. triphyllos.
Veronica agrestis.	V. agrestis.	V. agrestis.	V. agrestis.
Veronica polita.	*V. polita.*	*V. agrestis.*	*V. agrestis.*
Veronica Buxbaumii.	V. Buxbaumii.	V. Buxbaumii.	V. Buxbaumii.
Veronica hederifolia.	V. hederifolia.	V. hederæfolia.	V. hederæfolia.
Mentha rotundifolia.	M. rotundifolia.	M. rotundifolia.	M. rotundifolia.
Mentha sylvestris.	M. sylvestris.	M. sylvestris.	M. sylvestris.
Mentha viridis.	*M. sylvestris.*	*M. viridis.*	*M. viridis.*
Mentha piperita.	M. piperita.	M. piperita.	M. piperita.
Mentha aquatica.	M. aquatica.	M. aquatica.	M. aquatica.
Mentha pratensis.	*M. sativa.*	*M. pratensis.*	*M. arvensis.*
Mentha sativa.	M. sativa.	M. sativa.	M. sativa.
Mentha arvensis.	M. arvensis.	M. arvensis.	M. arvensis.
Mentha Pulegium.	M. Pulegium.	M. Pulegium.	M. Pulegium.
Lycopus europæus.	L. europæus.	L. europæus.	L. europæus.
Salvia Verbenaca.	S. Verbenaca.	S. Verbenaca.	S. Verbenaca.
Salvia clandestina.	*S. Verbenaca.*	*S. clandestina.*	*S. Verbenaca.*
Salvia pratensis.	S. pratensis.	S. pratensis.	S. pratensis.
Origanum vulgare.	O. vulgare.	O. vulgare.	O. vulgare.
Thymus Serpyllum.	T. Serpyllum.	T. Serpyllum.	T. Serpyllum.
Thymus Chamædrys.	*T. Serpyllum.*	*T. Serpyllum.*	*T. Serpyllum.*
Calamintha Nepeta.	*C. Nepeta.*	*C. Nepeta.*	*C. officinalis.*
Calamintha officinalis.	C. officinalis.	C. officinalis.	C. officinalis.
Calamintha sylvatica.	*C. sylvatica.*	*C. sylvatica.*	*C. officinalis.*
Calamintha Acinos.	C. Acinos.	C. Acinos.	C. Acinos.
Calamintha Clinopodium.	C. Clinopodium.	C. Clinopodium.	C. Clinopodium.
Scutellaria galericulata.	S. galericulata.	S. galericulata.	S. galericulata.
Scutellaria minor.	S. minor.	S. minor.	S. minor.
Prunella vulgaris.	P. vulgaris.	P. vulgaris.	P. vulgaris.
Nepeta Cataria.	N. Cataria.	N. Cataria.	N. Cataria.
Nepeta Glechoma.	*Glec. hederacea.*	*Nepeta Glechoma.*	*Nepeta Glechoma.*
Melittis Melissophyllum.	M. Melissophyl.	M. Melissophyllum.	M. Melissophyllum.
Lamium amplexicaule.	L. amplexicaule.	L. amplexicaule.	L. amplexicaule.
Lamium intermedium.	*L. intermedium.*	*L. intermedium.*	*L. amplexicaule.*
Lamium incisum.	*L. purpureum.*	*L. incisum.*	*L. purpureum.*
Lamium purpureum.	L. purpureum.	L. purpureum.	L. purpureum.
Lamium album.	L. album.	L. album.	L. album.
Lamium maculatum.	*L. maculatum.*	*L. album.*	*L. maculatum.*
Lamium Galeobdolon.	*L. Galeobdolon.*	*Galeobdolon luteum.*	*Lamium Galeobdolon.*
Leonurus Cardiaca.	L. Cardiaca.	L. Cardiaca.	L. Cardiaca.
Galeopsis ochroleuca.	G. ochroleuca.	G. ochroleuca.	G. ochroleuca.

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Galeopsis Ladanum.	G. Ladanum.	G. Ladanum.	G. Ladanum.
Galeopsis Tetrahit.	G. Tetrahit.	G. Tetrahit.	G. Tetrahit.
Galeopsis versicolor.	*G. versicolor.*	*G. versicolor.*	*G. Tetrahit.*
Stachys Betonica.	*S. Betonica.*	*Betonica officinalis.*	*Stachys Betonica.*
Stachys germanica.	S. germanica.	S. germanica.	S. germanica.
Stachys sylvatica.	S. sylvatica.	S. sylvatica.	S. sylvatica.
Stachys palustris.	S. palustris.	S. palustris.	S. palustris.
Stachys arvensis.	S. arvensis.	S. arvensis.	S. arvensis.
Stachys annua.	(Excluded.)	S. annua.	(Not established.)
Ballota fœtida.	*B. nigra.*	*B. nigra.*	*B. nigra.*
Ballota ruderalis.	*B. nigra.*	*B. nigra.*	*B. nigra.*
Marrubium vulgare.	M. vulgare.	M. vulgare.	M. vulgare.
Teucrium Scorodonia.	T. Scorodonia.	T. Scorodonia.	T. Scorodonia.
Teucrium Scordium.	T. Scordium.	T. Scordium.	T. Scordium.
Teucrium Chamædrys.	T. Chamædrys.	T. Chamædrys.	T. Chamædrys.
Teucrium Botrys.	T. Botrys.	T. Botrys.	(Excluded.)
Ajuga reptans.	A. reptans.	A. reptans.	A. reptans.
Ajuga pyramidalis.	*A. pyramidalis.*	*A. pyramidalis.*	*A. genevensis.*
Ajuga alpina.	(Excluded.)	*A. reptans.*	*A. reptans.*
Ajuga Chamæpitys.	A. Chamæpitys.	A. Chamæpitys.	A. Chamæpitys.
Verbena officinalis.	V. officinalis.	V. officinalis.	V. officinalis.
Pinguicula vulgaris.	P. vulgaris.	P. vulgaris.	P. vulgaris.
Pinguicula grandiflora.	*P. grandiflora.*	*P. grandiflora.*	*P. vulgaris.*
Pinguicula alpina.	P. alpina.	P. alpina.	P. alpina.
Pinguicula lusitanica.	P. lusitanica.	P. lusitanica.	P. lusitanica.
Utricularia vulgaris.	U. vulgaris.	U. vulgaris.	U. vulgaris.
Utricularia intermedia.	*U. intermedia.*	*U. intermedia.*	*U. minor.*
Utricularia minor.	U. minor.	U. minor.	U. minor.
Primula vulgaris.	*P. vulgaris.*	*P. vulgaris.*	*P. veris.*
Primula veris.	P. veris.	P. veris.	P. veris.
Primula elatior.	*P. elatior.*	*P. elatior.*	*P. veris.*
Primula farinosa.	P. farinosa.	P. farinosa.	P. farinosa.
Primula scotica.	*P. scotica.*	*P. scotica.*	*P. farinosa.*
Hottonia palustris.	H. palustris.	H. palustris.	H. palustris.
Cyclamen hederifolium.	*C. hederifolium.*	*C. hederæfolium.*	*C. europæum.*
Lysimachia thyrsiflora.	L. thyrsiflora.	L. thyrsiflora.	L. thyrsiflora.
Lysimachia vulgaris.	L. vulgaris.	L. vulgaris.	L. vulgaris.
Lysimachia ciliata.	(Excluded.)	L. ciliata.	"American," excluded.
Lysimachia Nummularia.	L. Nummularia.	L. Nummularia.	L. nummularia.
Lysimachia nemorum.	L. nemorum.	L. nemorum.	L. nemorum.
Anagallis arvensis.	A. arvensis.	A. arvensis.	A. arvensis.
Anagallis tenella.	A. tenella.	A. tenella.	A. tenella.
Centunculus minimus.	C. minimus.	C. minimus.	C. minimus.
Trientalis europæa.	T. europæa.	T. europæa.	T. europæa.
Glaux maritima.	G. maritima.	G. maritima.	G. maritima.
Samolus Valerandi.	S. Valerandi.	S. Valerandi.	S. Valerandi.
Statice Limonium.	S. Limonium.	S. Limonium.	S. Limonium.

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Statice Bahusiensis.	*S. Bahusiensis.*	*S. Bahusiensis.*	*S. Limonium.*
Statice Dodartii.	*S. binervosa.*	*S. binervosa.*	*S. auriculæfolia.*
Statice occidentalis.	*S. binervosa.*	*S. binervosa.*	*S. auriculæfolia.*
Statice caspia.	*S. caspia.*	*S. caspia.*	*S. reticulata.*
Armeria maritima.	*A. maritima.*	*A. vulgaris.*	*A. vulgaris.*
Plantago Coronopus.	P. Coronopus.	P. Coronopus.	P. Coronopus.
Plantago maritima.	P. maritima.	P. maritima.	P. maritima.
Plantago lanceolata.	P. lanceolata.	P. lanceolata.	P. lanceolata.
Plantago media.	P. media.	P. media.	P. media.
Plantago major.	P. major.	P. major.	P. major.
Littorella lacustris.	L. lacustris.	L. lacustris.	L. lacustris.
Suæda fruticosa.	*Schoberia frut.*	*Suæda fruticosa.*	*S. fruticosa.*
Suæda maritima.	*Schoberia marit.*	*Suæda maritima.*	S. maritima.
Salsola Kali.	S. Kali.	S. Kali.	S. Kali.
Chenopodium olidum.	*C. olidum.*	*C. olidum.*	*C. Vulvaria.*
Chenopodium polyspermum	C. polyspermum.	C. polyspermum.	C. polyspermum.
Chenopodium urbicum.	C. urbicum.	C. urbicum.	C. urbicum.
Chenopodium album.	C. album.	C. album.	C. album.
Chenopodium ficifolium.	*C. ficifolium.*	*C. ficifolium.*	*C. album.*
Chenopodium murale.	C. murale.	C. murale.	C. murale.
Chenopodium hybridum	C. hybridum.	C. hybridum.	C. hybridum.
Chenopodium rubrum.	C. rubrum.	C. rubrum.	C. rubrum.
Chenopodium botryoides.	*C. botryoides.*	*C. rubrum.*	*C. rubrum.*
Chenopodium glaucum.	C. glaucum.	C. glaucum.	C. glaucum.
Chen. Bonus-Henricus.	C. B.-Henricus.	C. Bonus-Henricus.	C. Bonus-Henricus.
Beta maritima.	B. maritima.	B. maritima.	B. maritima.
Salicornia herbacea.	S. herbacea.	S. herbacea.	S. herbacea.
Salicornia radicans.	*S. radicans.*	*S. radicans.*	*S. herbacea.*
Atriplex littoralis.	A. littoralis.	A. littoralis.	A. littoralis.
Atriplex marina.	*A. littoralis.*	*A. littoralis.*	*A. patula.*
Atriplex angustifolia.	*A. patula.*	*A. angustifolia.*	*A. patula.*
Atriplex erecta.	*A. patula.*	*A. angustifolia.*	*A. patula.*
Atriplex deltoidea.	*A. hastata.*	*A. deltoidea.*	*A. patula.*
Atriplex hastata.	*A. hastata.*	*A. patula.*	*A. patula.*
Atriplex Babingtonii.	*A. Babingtonii.*	*A. Babingtoni.*	*A. patula.*
Atriplex arenaria.	*A. arenaria.*	*A. laciniata.*	*A. rosea.*
Obione pedunculata.	*Atriplex pedun.*	*Atriplex pedunculata.*	*Atriplex pedunc.*
Obione portulacoides.	*Atriplex portul.*	*Atriplex portulac.*	*Atriplex portulac.*
Rumex maritimus.	R. maritimus.	R. maritimus.	R. maritimus.
Rumex palustris.	*R. maritimus.*	*R. palustris.*	*R. maritimus.*
Rumex conglomeratus.	R. conglomerat.	R. conglomeratus.	R. conglomeratus.
Rumex sanguineus.	R. sanguineus.	R. sanguineus.	R. sanguineus.
Rumex pulcher.	R. pulcher.	R. pulcher.	R. pulcher.
Rumex obtusifolius.	R. obtusifolius.	R. obtusifolius.	R. obtusifolius.
Rumex pratensis.	*R. pratensis.*	*R. pratensis.*	*R. crispus.*
Rumex crispus.	R. crispus.	R. crispus.	R. crispus.
Rumex aquaticus.	R. aquaticus.	R. aquaticus.	R. aquaticus.

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Rumex Hydrolapathum.	R. Hydrolapa.	R. Hydrolapathum.	R. Hydrolapathum.
Rumex alpinus.	R. albinus.	R. alpinus.	(Not established.)
Rumex Acetosa.	R. Acetosa.	R. Acetosa.	R. Acetosa.
Rumex Acetosella.	R. Acetosella.	R. Acetosella.	R. Acetosella.
Oxyria reniformis.	O. reniformis.	O. reniformis.	O. reniformis.
Polygonum Bistorta.	P. Bistorta.	P. Bistorta.	P. Bistorta.
Polygonum viviparum.	P. viviparum.	P. viviparum.	P. viviparum.
Polygonum amphibium.	P. amphibium.	P. amphibium.	P. amphibium.
Polygonum lapathifolium.	P. lapathifolium.	P. lapathifolium.	P. lapathifolium.
Polygonum laxum.	*P. lapathifolium.*	*P. nodosum.*	*P. lapathifolium.*
Polygonum Persicaria.	P. Persicaria.	P. Persicaria.	P. Persicaria.
Polygonum mite.	*P. mite.*	*P. mite.*	*P. minus.*
Polygonum Hydropiper.	P. Hydropiper.	P. Hydropiper.	P. Hydropiper.
Polygonum minus.	P. minus.	P. minus.	P. minus.
Polygonum aviculare.	P. aviculare.	P. aviculare.	P. aviculare.
Polygonum Raii.	*P. Raii.*	*P. Raii.*	*P. maritimum.*
Polygonum maritimum.	P. maritimum.	P. maritimum.	P. maritimum.
Polygonum Convolvulus.	P. Convolvulus.	P. Convolvulus.	P. Convolvulus.
Polygonum dumetorum.	P. dumetorum.	P. dumetorum.	P. dumetorum.
Fagopyrum esculentum.	(*Excluded.*)	*Polygonum Fagopyrum.*	*F. esculentum.*
Hippophaë rhamnoides.	H. rhamnoides.	H. rhamnoides.	H. rhamnoides.
Daphne Mezereum.	D. Mezereum.	D. Mezereon.	D. Mezereum.
Daphne Laureola.	D. Laureola.	D. Laureola.	D. Laureola.
Thesium humifusum.	*T. humifusum.*	*T. linophyllum.*	*T. linophyllum.*
Aristolochia Clematitis.	A. Clematitis.	A. Clematitis.	(Not established.)
Asarum europæum.	A. europæum.	A. europæum.	A. europæum.
Empetrum nigrum.	E. nigrum.	E. nigrum.	E. nigrum.
Buxus sempervirens.	B. sempervirens.	B. sempervirens.	B. sempervirens.
Euphorbia Peplis.	E. Peplis.	E. Peplis.	E. Peplis.
Euphorbia Helioscopia.	E. Helioscopia.	E. Helioscopia.	E. Helioscopia.
Euphorbia stricta.	*E. stricta.*	*E. platyphylla.*	*E. platyphyllos.*
Euphorbia platyphylla.	E. platyphylla.	E. platyphylla.	E. platyphyllos.
Euphorbia hiberna.	E. hiberna.	E. hiberna.	E. hibernica.
Euphorbia palustris.	*E. pilosa.*	*E. palustris.*	*E. pilosa.*
Euphorbia coralloides.	*E. coralloides.*	*E. coralloides.*	*E. pilosa.*
Euphorbia amygdaloides.	E. amygdaloides.	E. amygdaloides.	E. amygdaloides.
Euphorbia Esula.	E. Esula.	E. Esula.	E. Esula.
Euphorbia Paralias.	E. Paralias.	E. Paralias.	E. Paralias.
Euphorbia portlandica.	*E. portlandica.*	*E. portlandica.*	*E. segetalis.*
Euphorbia Peplus.	E. Peplus.	E. Peplus.	E. Peplus.
Euphorbia exigua.	E. exigua.	E. exigua.	E. exigua.
Euphorbia Lathyris.	E. Lathyris.	E. Lathyris.	E Lathyris.
Mercurialis perennis.	M. perennis.	M. perennis.	M. perennis.
Mercurialis annua.	M. annua.	M. annua.	M. annua.
Ceratophyllum demersum.	C. demersum.	C. demersum.	C. demersum.
Ceratophyllum submersum.	*C. submersum.*	*C. submersum.*	*C. demersum.*
Callitriche verna.	*C. verna.*	*C. verna.*	*C. aquatica.*

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Callitriche platycarpa.	*C. platycarpa.*	*C. verna.*	*C. aquatica.*
Callitriche hamulata.	*C. pedunculata.*	*C. pedunculata.*	*C. aquatica.*
Callitriche autumnalis.	*C. autumnalis.*	*C. autumnalis.*	*C. aquatica.*
Parietaria erecta.	*P. officinalis.*	*P. officinalis.*	*P. officinalis.*
Parietaria diffusa.	*P. officinalis.*	*P. officinalis.*	*P. officinalis.*
Urtica pilulifera.	U. pilulifera.	U. pilulifera.	U. pilulifera.
Urtica urens.	U. urens.	U. urens.	U. urens.
Urtica dioica.	U. dioica.	U. dioica.	U. dioica.
Humulus Lupulus.	H. Lupulus.	H. Lupulus.	H. Lupulus.
Ulmus suberosa.	*U. suberosa.*	*U. suberosa.*	*U. campestris.*
Ulmus montana.	*U. montana.*	*U. campestris.*	*U. montana.*
Salix pentandra.	S. pentandra.	S. pentandra.	S. pentandra.
Salix cuspidata.	S. cuspidata.	S. cuspidata.	(Excluded.)
Salix fragilis.	S. fragilis.	S. fragilis.	S. fragilis.
Salix alba.	S. alba.	S. alba.	S. alba.
Salix alba, c.	*S. alba, c.*	*S. vitellina.*	*S. alba.*
Salix undulata.	*S. undulata.*	*S. undulata.*	*S. amygdalina.*
Salix triandra.	*S. triandra.*	*S. triandra.*	*S. amygdalina.*
Salix acutifolia.	S. acutifolia.	S. acutifolia.	(Excluded.)
Salix purpurea.	S. purpurea.	S. purpurea.	S. purpurea.
Salix purpurea, e.	*S. purpurea, e.*	*S. Helix.*	*S. purpurea.*
Salix rubra.	*S. rubra.*	*S. rubra.*	*S. purpurea.*
Salix rubra, b.	*S. rubra, b.*	*S. Forbyana.*	*S. purpurea.*
Salix viminalis.	S. viminalis.	S. viminalis.	S. viminalis.
Salix stipularis.	*S. stipularis.*	*S. stipularis.*	*S. viminalis.*
Salix Smithiana.	*S. Smithiana.*	*S. Smithiana.*	*S. viminalis.*
Salix Smithiana, b.	*(Excluded.)*	*S. holosericea.*	? *S. viminalis.*
Salix Smithiana, g.	*S. Smithiana, c.*	*S. ferruginea.*	? *S. viminalis.*
Salix acuminata.	*S. acuminata.*	*S. acuminata.*	*S. Caprea.*
Salix cinerea.	*S. cinerea.*	*S. cinerea.*	*S. Caprea.*
Salix aurita.	S. aurita.	S. aurita.	S. aurita.
Salix Caprea.	S. Caprea.	S. Caprea.	S. Caprea.
Salix nigricans.	*S. nigricans.*	*S. nigricans.*	*S. phylicifolia.*

(To be continued.)

THE INTERNATIONAL EXHIBITION.

The Editor has much pleasure in acknowledging his obligations to Mr. Kennedy, the eminent pteridologist and zoophytologist of Covent Garden, for files of the 'Brisbane Courier,' containing a *catalogue raisonné* of vegetable articles of commerce, the produce of Queensland, which are to be presented to the notice of the public in the forthcoming International Exhibition. He further desires to notify to his readers that they are mainly indebted to Mr. Hill, the zealous and energetic Director of the Botanical Gardens at Brisbane, for an excellent account of these articles, both wild and cultivated.

These productions, which are chiefly cultivated in the Botanic Gardens at Brisbane, will form an instructive and interesting feature of the forthcoming Exhibition; and our readers are informed that similar papers, on this economical department of botany, will be published occasionally during the course of this season.

The products of Queensland intended for exhibition in London were exhibited at Brisbane for some weeks in October, 1861, as we learn from a local newspaper, the 'Courier,' of November 14, 1861; and the collection was visited by all the influential settlers, previously to its transmission to England.

"One of the most striking features of the Exhibition is the display of woods indigenous to the colony, which occupies the tables at the northern end of the building, and a portion of the centre table in the same part of the Exhibition. For this fine display of specimens of woods indigenous to Queensland the colony is indebted to the exertions of Mr. W. Hill, Director of the Botanical Gardens. Polished specimens of all these woods, as well as specimens of the timber in its rough state, are exhibited; whilst some of the pieces have been manufactured into stockwhip handles, etc. The portion of the catalogue relating to this exhibition of timber has been prepared by Mr. Hill, and will prove valuable in bringing the capabilities of the colony in this branch of produce into notice, containing as it does remarks descriptive of the nature of the trees and the qualities of their woods, so far as they could be ascertained. In placing the catalogue before the public, Mr. Hill says, 'It does not contain all the woods indigenous to the colony, but only such as could be procured (during a few stolen hours from other duties) at no considerable distance from Brisbane. The immense and grand scrubs bordering upon the banks of the rivers Mary and Burnett, the northern watersheds, the western interior, and southern district, have not been examined at all.'

"This collection consists of 120 varieties, which have been procured within a radius of twenty miles of Brisbane. In it will be found woods of almost every description, suitable both for Her Majesty's navy and Her Majesty's boudoir, being equally available for the masts and keel of a man-of-war as for the most *recherché* of ladies' cabinets or work-tables; and suitable also for the tan-pits of Bermondsey, or the incense used in the joss-houses of China. Although timber is, commercially considered, the least lucrative production of the colony, and regarded of little or no value, since many of the finest furniture woods are used as fire-wood and paling-stuff every day, yet we have considered this collection of Mr. Hill's to be one of the more attractive portions of the Exhibition, and the best representative of any of the classes, and have therefore commended it to your Excellency's notice as worthy of special attention."

AUSTRALIAN CEREALS.—*From the 'Brisbane Courier,' Nov.* 14, 1861.

"Of Cereals there are but three specimens, two of wheat and one of barley; the former grown at Toowoomba, Darling Downs, and Rockhampton; the latter at Rockhampton. To these samples of wheat special attention is requested, since it has often been asserted, even by old colonists, that, with all its great variety of productions, Queensland could not grow wheat. We think that the samples exhibited are a sufficient contradiction of such an assertion, and that Queensland can not only grow wheat but can grow very good wheat, as the flour made from it, some of which is also exhibited, incontestably proves. When it is considered that £94,339 sterling were sent out of this colony last year for the purchase of wheat and flour, it surely becomes us to pause and inquire whether some portion of that large sum might not be saved to the colony, seeing that we have extensive tracts of land suited for its production now lying idle."

QUEENSLAND A SUGAR-PRODUCING COLONY.

From the 'Brisbane Courier,' Nov. 14, 1861.

"The sugar-canes exhibited were grown at Cleveland, on the coast, and the Botanic Gardens in Brisbane, and the Commissioners have been assured, by a gentleman capable of giving a reliable opinion, that they are fully equal to any grown in the Mauritius.

"Although unsuccessful in our first attempt to manufacture sugar from them, we are yet hopeful of being able to exhibit some before the Brisbane Exhibition closes, the canes not being quite ready for the purpose. The sample of rum exhibited is

350· p., and is interesting as being the first spirit made from the sugar-cane in this colony. There can be but little doubt that sugar-growing will form one of our industrial occupations in the course of a very few years."

AUSTRALIAN ARROWROOT.

"The agriculturists in the neighbourhood of Brisbane and Maryborough have furnished the Commissioners with twenty-six samples of arrowroot—eight being of the white variety (*Maranta arundinacea*), and sixteen of the purple variety (*Canna edulis*). Some of the samples are fully equal to the best Bermuda arrowroot. As this plant grows very luxuriantly, the yield of its nutritious farina is consequently great; and there is every reason to believe that it will become an article of considerable export to the neighbouring colonies. The reasonableness of its price and its very superior quality fully justify such a conclusion."

AUSTRALIAN COFFEE.—*From the 'Brisbane Courier,' Nov.* 14, 1861.

"The sample of coffee exhibited is the produce of one tree growing but a few yards from the banks of the Brisbane River. We conceive this sample, although small, to be highly important, since it proves the adaptability of our soil and climate to the growth of the coffee-tree, and furnishes an additional illustration of the capabilities of this colony."

AUSTRALIAN TOBACCO.—*From the 'Brisbane Courier,' Nov.* 14, 1861.

"Amongst other important articles of agricultural produce, we desire to notice the samples of tobacco, both in leaf and manufactured, grown at Rockhampton; and, considering the large sum (£17,727) paid by this colony for foreign tobacco, we think its cultivation here deserving the attention of our agriculturists."

The following are from the cultivated soil of the Botanical Gardens, or from the wild bush in the vicinity of Brisbane, viz. "cotton, tobacco, arrowroot, rice, ginger prepared in various ways, cinnamon, sarsaparilla, sugar-cane, specimens of gum and bark of various kinds, and a variety of fibres. At the tables in the northern half of the building are also placed the samples of maize, wheat, barley, flour, tobacco in leaf (the sample grown by M. Thozet, of Rockhampton), jams, preserved fruits, and wines.

THE COLONY OF QUEENSLAND A COTTON-PRODUCING DISTRICT.

From the 'Brisbane Courier,' Nov. 14, 1861.

"There is at present a peculiar interest attached to the production of cotton, owing to the disastrous civil war now raging in the United States, and the probable scarcity of this important staple in consequence, which will inevitably entail upon the manufacturing interests of Great Britain much distress and misery. The samples of sea-island cotton exhibited at Brisbane to be sent to the International Exhibition are twenty-four in number, and have been grown in different parts of the colony during the present year—an unusually unseasonable year for the purpose. The majority of the samples are from the coast country of the colony; but there is one sample from the Dawson River, a distance of two hundred miles from the seaboard. This interesting fact will give the manufacturers of England some idea of the vastness of our cotton field, and show them that there is a colony in Australia from whence a supply of this valuable staple, equal to any demand, can be furnished, so soon as capital and labour are introduced into it for the purpose.

"In order to encourage the cultivation of this valuable staple product, we felt warranted in offering to purchase all the cotton that might be grown during this year, at a fair price (but which was in no way intended to interfere with the liberal bonus offered by the Government, namely, £10 per bale); an encouragement which appears to have been attended with some success, judging from the quantity sent in to the Commissioners. In awarding the prizes of this class, the jurors experienced considerable difficulty, owing to the quality of the samples as regarded the fineness, strength, and length of staple; but, as some of the exhibitors had taken more pains than others in the cleaning and preparation of the wool, the jurors were compelled, in some instances where the samples were so equal in quality, to award the prize to the more clean and more carefully-picked samples; an explanation which we hope will prove satisfactory to those interested in such awards. The defective preparation of some of the samples may be accounted for by the imperfect machinery made use of.

"The specimens of upland cotton, although few, are remarkably fine, and were grown on the coast country; they have sea-island gloss, very unlike the coarse, hairy appearance of the same varieties met with from other parts of the world."

TEXTILE FIBROUS MATERIALS FROM BRISBANE, QUEENSLAND.

"The attention of the Commissioners having been directed to the fibre-producing plants of the colony for the manufacture of paper and textile fabrics, we sent to Manilla to ascertain the process generally adopted in the Philippine Islands, in the preparation of that variety of the Banana (*Musa textilis*) from which is obtained the Manilla Hemp of commerce. Our communication was courteously responded to by Messrs. Russell and Sturgis, of Manilla, who very kindly sent us a sketch of the machine in use there for that purpose. From this we had a machine made, and lent it to some Banana-growers in the neighbourhood, but their report of its utility is not a favourable one; this no doubt arises from some defect in the details of the machine, or in the manipulation; we may look for more favourable results hereafter.

"Amongst the samples of fibre exhibited will be found a very good specimen obtained from the *Musa textilis*, for which the prize was awarded to Mr. Warner; and some fibre contributed by Mr. Hill, procured from a Malvaceous plant (*Sida*) a weed that grows with wild luxuriance in many unoccupied grounds in the neighbourhood, which on examination will be found to be very strong, of average length and fineness, and suitable for a variety of useful purposes."

LOCAL BOTANY IN THE EIGHTEENTH CENTURY.

Journal of a Botanical Tour from London to Dover, the Isle of Thanet, Rochester, etc., by Tunbridge and Hastings; copied from the Sloane MSS. 'Adversaria Petiveriana.'

August 15*th*, 1714.—Soon after four o'clock this afternoon Mr. Sherard (James) and I (James Petiver) left London by Bromley Riverhead, Maram's Court, for Sevenoaks, where we halted for the night.

August 16*th*.—About eight o'clock this morning we visited

Dr. Fuller,* where we were courteously received and hospitably entertained. In the Doctor's garden we saw many choice and curious plants, and from his summer-house, which is an octagonal structure erected on an artificial eminence, we had fair prospects of the grand family-seat of the Earls of Dorset, Knowle, with its park, woods, and trees, and extensive views of the surrounding country. The Doctor regaled us with cold venison, pastry, and extraordinary good strong beer. We were shown his study, which is well furnished with valuable, scarce, and curious books.

About noon we came to Tunbridge Wells, and immediately set out to search the heaths and bogs thereabouts. On the Heath, about half a mile from the Wells, a little way on the left-hand of the road that goes to Frant, we found *Lycopodium clavatum*, *Hieracium fruticosum angustifolium* (*H. umbellatum*); and about half a mile further near to Frant are bogs spread with Gale, Lancashire Asphodel, *Ascyron villosum*, *Gramen leucanthemum* (*Rhynchospora alba*), *Ros solis fol. rotund.*, and many other rare plants. Pneumonanthe is said to grow there, but we could not find it.

From thence we kept to the right-hand over the hills, till we came to the stupendous high rocks about a mile and a half from the bog, and about as far from the Wells. Here we gathered *Adianthum fol. bifidis*, *Muscus capil. coccineis*, and a great variety of other mosses.

On the 17*th* we reached Brede, a small town about eight miles from Hastings, through horrid dismal roads, by Ticehurst and Wadhurst, by which surely no coach or chaise had ever passed. By the way we saw a great quantity of *Tanacetum*, and gathered *Mentastrum spicatum folio longiore*, *Mentha viridis*, in a narrow, steep passage through a wood, about a mile before we came to Brede. Here we were kindly entertained by Mr. Tindall's brother.

August 18*th*.—Having made a plentiful breakfast on oysters and other good things, we set out for Hastings, accompanied by Mr. Tindall and his brother. In a bog which lies in Westfield Down we found *Ros solis fol. oblongo,* very large, in seed, and in great plenty. It discovered itself to be different from that *fol. rotundo,* not only by the largeness of the tuft, but also by the erect manner in which the leaves and whole plant grow.

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* Dr. Thomas Fuller, who lived at Sevenoaks, and where he practised as a physician, is well known as a celebrated author. The following works are from his pen:

'*Gnomologia;* Adages and Proverbs, Wise Sentences and Witty Sayings.' London, 1732. 12mo.

'*Introductio ad Prudentiam;* or, Directions, Counsels, and Cautions, tending to Prudence and Management of Affairs in Common Life.' London, 1726, 1727. 8vo. Reprinted, 1743, 2 vols.

The cold breakfast on venison and beer is a sample of the substantial hospitality of earlier times.

We gathered also, in a shady lane near Mr. Tindall's house, *Helleborus latifolius* (*H. fœtidus*). By the windmill on Fairlight Hill we had a full view of the sea from Bourn Cliffs, which are at the beginning of the South Downs, to the cliffs of Folkestone; and, had the day been fine, we might have seen the coast of France. Between two and three we got to Hastings, and immediately set about our affairs. Here we found on the castle walls *Chamæfelix Adianthum nigrum* (*Asplenium Adiantum-nigrum*), *Hipposelinum* (*Smyrnium Olusatrum*), *Erica maritima* (*Frankenia maritima*), *Sedum minimum non acri flore albo* (*Sedum anglicum*), *Bupleurum* (*B. tenuissimum?*), near the rivulet, according to Mr. Ray's directions. On the beach we gathered *Tithymalus Paralias* (*Euphorbia*), *Pisum marinum, Soldanella* in seed, *Brassica marina monospermos* (*Crambe mar.*), *Papaver luteum corniculatum* (*Glaucium*), *Beta mar.* (*Thlaspi*). On the seashore was collected a great variety of seaweeds, skulls, and other curiosities thrown up by the sea.

August 19*th.*—We left Hastings, and travelled for about four miles near the seaside to a little village called Pott, where Mr. Tindall had a sister, married to a very worthy gentleman, Mr. Martyn, with whom we dined. Before dinner we walked a mile to the sea, where we found *Bupleurum* again, and returning home, in a field on the left hand of the lane that leads from the sea to the town we found a good quantity of *Linum angustifolium.* In a bog near the road which goes to Winchelsea, we met with *Pentaphylloides flore rubro* (*Comarum palustre*), *Trifol. paludosum* (*Menyanthes trifoliata*), and several other rare plants; but the bog was so moist that we could not search it thoroughly. In the evening we came to the Mayor of Winchelsea's house, whither Mr. Martyn was also so kind as to accompany us. Here we met with two other brothers of Mr. Tindall, and some more friends. Being this night to part with Mr. Tindall and his relations, from whom we had received great civilities, we were desirous of entertaining them in the best manner the place could afford.

We could get no wine, but Mr. Mayor made so excellent punch that every bowl was better than its predecessor. After a light supper and a hearty draught of this liquor, they took leave of us, and set out most cheerful for their respective habitations. At our first coming we took a turn or two about the town, and by the ruins and the remains we could plainly discover that this has been a fine, regular place. We found on its walls *Umbilicus Veneris, Solanum lethale* (*Atropa Belladonna*), in the marsh *Althæa, Kali minus* (*Salicornia?*) *Tripolium Atriplex, Deltoides marina* (*Armeria maritima*).

August 20th.—This morning early we left Winchelsea, accompanied by two of our friends, who were to conduct us to the seaside, in order to our passing that arm of the sea that runs up to Rye Bay; too early for the tide, we stopped at Winchelsea Castle, about two miles from the town. Here we were pretty near and had a full prospect of Rye. Upon that side of the castle wall that looks to Rye, we found great plenty of *Chamædrys* (*Teucrium*), and on the ruins, *Hipposelinum* (Alexanders).

The tide being near down, we drove about a mile before we came to the channel of the river that runs from Rye. After a stay of about half an hour, which we employed in shell-picking, etc., our friends found a place where we might ford the river safely with our chaise. We took their directions and parted.

We then drove on the sands, between the beach and the sea, for two miles, and then entered Romney Marsh. In six or seven miles we came to Lyd, a pretty market-town; the roads were extraordinary good, and the fields all thereabout overspread with *Caryophyl. marinus* (*Statice Armeria*).

About three miles further we baited at New Romney, one of the Cinque Ports. Near the sea was found *Mercurialis*, but we forgot to look for the Roman Nettle, said to grow in the street. From hence we had eleven miles, some part very sandy, and other parts very stony, upon the banks of the sea to Hythe, where we dined and went to the beach, but could find little worth our notice except in the marshes between the town and beach, where we met with *Anthoxanthum*, and in the street near the church *Mercurialis* again. We were afterwards informed by the parson of Knowlton, who lived many years in this town, and has pretty good taste of botany, that there is very good simpling on the cliffs and hills above the town, that *Urtica* *romana* grows plentifully in the streets, particularly under the walls of Mr. Wood's house and gardens. Here we first observed *Cannabis sativa*, but afterwards very frequently in E. Kent.

After dinner we travelled two miles to Sandowne Castle. *Zyris* (*Iris fœtidissima?*) grows plentifully all thereabout, and mounting the hills we met with *Rubia Cynanchica* (*Asperula Cynanchica*).

In two miles we came to Folkestone, a base rugged town, inhabited chiefly by fishermen; thence we had seven miles by the downs and cliffs to Dover. From these cliffs we could easily see the coast of France, though late in the evening. We lay at the King's Head at Dover Pier.

August 21*st*.—We visited the cliffs, and found *Limonium minus* (the Dover form of *Statice Limonium*, or *reticulata*, or *bahusiensis*, or *spatulata*, or *binervosa*), *Brassica arborea*, *Crithmum*, *Gentianella*, *Orchis*, *Soldanella*; on the cliff from the east, *Lychnis Dubrensis* (the Dover form of *Silene nutans*), *Verbascum flo. amplo*, and in the cornfields, going up to the castle, *Mercurialis* among the corn. *Rubia Cynanchica* on this side of the castle hill.

On the beach and seashore we gathered *Brassica monospermos*. At noon we returned to our lodgings, where a friend was to dine with us. In the evening we went to Knowlton Place, one of the seats of Thomas D'Eath, Esq., about eight to nine miles from Dover. By the way, through mistake of our friends, we were carried to Waldisham, a fine seat of Sir Robert Furness; but our guide having to return, we had not time to see the house, which seemed very noble and stately, and the gardens very large and neatly kept. We got in good time to Mr. D'Eath's.

August 22*nd*.—We spent this day at Knowlton, where we met not only with a very kind and hearty reception, but most gentle and generous entertainment. The house is noble and large, and when the alterations now making are completed, it may vie with most seats in this part of Kent. It stands on a knoll in an open fine country, environed with pleasant woods and groves, which are not very large, but very delightful.

In the evening we took a turn into the woods, where on the right-hand of the walk, by the parson's house, we found *Helleboraster* (*H. viridis*). *Herba Paris* we were informed grows here, but we could find no remains of it. Here it must certainly be very good simpling in the spring and summer seasons, not only in the woods and groves, but also on the banks of chalk pits and hollow ways, where we found the remains of a great many scarce plants. The corn fields produce a sort of *Ladanum*, so large that it seems a sort different to that about London. We observed *Jacea flo. albo* (*Centaurea nigra*) in several places, and *Adianthum album* (*A. Ruta-muraria*) grew upon the churchyard walls.

August 23rd.—This morning Mr. D'Eath was so kind as to give us his company to Deal, about six miles from Knowlton. By the way we found *Vinca pervinca major*. From Deal we sent our servant before, and kept near the sea, in order to walk four or five miles to Sandwich. On the sandy downs near Sandowne Castle we met with *Oleaster* (*Hippophaë rhamnoides*) and the *Salix* (*S. arenaria ?*) mentioned by Mr. Ray, *Anonis mar. Kali spinosa* (*Salsola*), *Eryngo mar.*, *Tithym.* (*Euphorbia*) *Paralias*, *Juncus mar.*, *Junc. capitulis*, *Sorghi* (*J. acutus*), *Ononis spinosa*. The whole downs are covered with *Spartium*, a great quantity of which we saw laid to dry on the beach, in order to make Bas belts. After a tiresome walk we came to Sandwich, where on the walls of the town we observed *Matricaria flore albo*.

After dinner we crossed into the Isle of Thanet. Near the ferry we found in great plenty *Halimus capsulis cordatis* (*H. pedunculatus*), *Bupleurum*, etc. On our return, we found a servant of Mr. D'Eath's attending at our inn to conduct us to his house that night again.

August 24th.—Left Mr. D'Eath, and in eight or nine miles reached Canterbury, and stayed an hour or two to see the town and cathedral. On the top of the church walls we saw very large *Trichomanes*. Nine miles further reached Faversham, where we dined. We observed *Ebulus* plentifully near a town about three miles before we came to Faversham, and *Trachelium majus* by the roadside for twenty miles.

At Faversham we went to the marshes, intending to visit the seashores, and would have gone to Sheppey, but by mistake we took the wrong side of the river and had to return again *re infecta*, by reason of impassable ditches. We found *Peucedanum officinale*, *Statice Limonium*, *Aster Tripolium*, etc.

In the evening, six or seven miles further to Sittingbourne, where we lay that night. By the way on Beacon Hill we found *Triorchis* (*Ophrys spiralis*) in plenty and *Linum angustifolium*.

August 25th.—On the road to Rochester we gathered *Saponaria, Mentha spicata glabra.* We saw also frequently *Hieracium majus*, and on the hill before we came to Chatham *Gentianella, Rubia Cynanchica* in great plenty, and on Rochester Castle *Caryophyllus simplex flore minore* (*D. Caryophyllus*).

At Northfleet we dined, and about the chalk hills met good store of *Gentianella* very large and also *Conyza flor. ferrugineo, Fœniculum* and *Sinapi siliquis* (*S. nigra*), and hoped to find *Orchis flore glomerato*, but were too late for this and other scarce and curious plants. This night we finished our journey.

On the banks of the deep way, near the gravel-pits on Blackheath, we observed *Hyacinthus autumnalis* in seed, and the flowers all gone.

BOTANICAL NOTES FOR MALVERN.

I have been frequently asked, what is there peculiar in the Botany of the Malvern Hills?—what are the rarest plants growing there, and is any species confined to this igneous axial range? To these questions I can only answer, that the vegetation now appearing on the chain seems to be all *derivable* from elsewhere; there is nothing limited to the syenite, and rare plants, as understood by botanists, are very sparsely scattered. The constant exposure of the bare Malvern heights to the sun, and their narrowness, precludes the establishment of even those subalpine plants that in Wales grow at a less elevation; though *Sedum album*, which no doubt can destroy, finds an appropriate home among the arid cliffs of the North Hill. Here it is undoubtedly truly indigenous, though in very dwarf state, not at all spreading on to the walls about the base of the hills, but entirely confined to the rocks of the middle region, at about seven hundred feet of altitude. The only other Sedums that the hills nourish are *acre* and *Telephium*. If we add to these *Cotyledon umbilicus, Potentilla verna, P. argentea, Myosotis collina, M. versicolor, Mœnchia erecta, Gnaphalium sylvaticum*, and *Hypericum montanum* (the latter very uncommon), few other plants deserve to be enumerated as really attached to the igneous rocks. The only species preferring subalpine localities that can be found on the Malvern range, and these but in a few spots, are the Bilberry (*Vaccinium Myrtillus*) and the broad-leaved Cotton-Grass (*Eriophorum latifolium*). The little Rock Brakes or Mountain Parsley-Fern (*Allosorus crispus*), straggling from Cambrian ridges, where it flourishes so abundant and beautiful, clings to one rock only of the Herefordshire Beacon, near Little Malvern, and never spreads from that locality. In the detailed 'Botany of the Malvern Hills,' by E. Lees, F.L.S., published in 1852, and which necessarily took a compass of some miles on either side of the axial chain, the total Phanerogamic Vegetation it is said comprises eight hundred and two plants; but the far greater proportion of these were gathered on the Silurian strata at the western bases of the hills, and in the country between Malvern and the Severn. Extending botanical investigation to the lower country, various local and uncommon plants may be gathered, especially where the Silurian limestone breaks forth, and in marshy places. I may mention, *Œnanthe pimpinelloides*, at Maddresfield; *Bupleurum tenuissimum*, below Barnard's Green; *Cynoglossum sylvaticum*, at Longdon; *Rumex maritimus*, *Lathyrus palustris* (Blue Marsh Vetchling) and *Cnicus pratensis*, in the wet meadows of Longdon Marsh; *Chrysosplenium alternifolium* and *Gagea lutea*, Purlieu-lane; *Rosa sepium*, at Little Malvern; *Erodium maritimum* (Sea Stork's-bill), near Barnard's Green; *Vicia sylvatica*, in Mathon and Cradley Woods; *Lactuca Scariola* (Prickly Lettuce), near Welland; *Orchis pyramidalis*, at the Croft lime-quarries; *Epipactis purpurata*, at Broadwas, etc. But I must now confine myself to the hills and their outcropping rocks in particular.

A remarkable absence of some families may be noted, which could scarcely have been expected. But along the whole Malvern range no species of *Erica* (Heath) occurs; the common Ling (*Calluna vulgaris*) shows itself but scantily; and not a single *Lycopodium* has been anywhere detected.

RAMBLES BY THE RIBBLE.

Buckley Hall, Buckley Delf, Ribchester Bridge, Ribbleton Moor, Higher and Lower Brockholes.

About a mile or so from Longbridge, we come to Buckley Hall, a whitewashed house of solid masonry, strong enough almost for a fortress. Its mullioned windows and general style evidence something of past dignity. Baines says it was built by the Sherburnes in 1666; it having formed a portion of the Stonyhurst estate. There is, however, no record of it having been the residence of any one above the rank of a farmer. Passing the hall we come upon Buckley Delf, a once-noted stone quarry, but which some years since ceased to be worked, when the Corporation of Preston diverted the bulk of the water of Cowley Brook, which had previously furnished the motive power for the quarrying. It has begun to assume the picturesque costume which follows the abandonment of such workings. It is a nice place for a botanist. When I was last there, in company with my botanical friend, we did not meet with any botanical rarities, but the steep banks and hollows formed by the old workings of the delf were covered with vegetation, comprising a great variety of plants, and including many of our most popular favourites. Of Roses there were several varieties, if not species, perhaps the most conspicuous of them being the white Field Rose (*Rosa arvensis*), which here flourished in random luxuriance, and which was also frequent in the neighbouring hedges. The Bramble or Blackberry family (*Rubus*) had also several representatives. The Wood Strawberry (*Fragariavesca*) was abundant. It is a plant whose fruit is generally more popular even with botanists (contrary to the general rule) than its blossoms, and one which adds materially to the attractions of the old quarry, when the former is ripe, as indeed we experienced on the occasion of one of our visits to the spot. The great white Ox-eye, called in many places the Dog-daisy (*Chrysanthemum Leucanthemum*), figured very conspicuously, the pure white rays of its blossoms contrasting beautifully with the rich green foliage and gay colours surrounding it. That difficult tribe, the Hawkweed family, was represented by the shrubby broad-leaved Hawkweed (*Hieracium sabaudum*) and several other species. The Purging Flax (*Linum catharticum*) and the Wood Betony (*Betonica officinalis*), two plants which hold important places in the rural pharmacopœia, were plentiful, the former abont the delf, and the latter on the banks in the neighbourhood. We met with several fine specimens of the Zigzag Trefoil (*Trifolium medium*), two or three different species of the Groundsel or Ragwort family (*Senecio*), and great quantities of the great Horsetail (*Equisetum Telmateja*). There were many other descriptions of plants, too numerous for especial mention, and, in fact, too common to require it; but the above will be sufficient to give an idea of the luxuriant vegetation of the scene. Before I conclude this branch of the subject, however, I should mention that the Dyer's Greenweed (*Genista tinctoria*), a plant not commonly met with in the neighbourhood of Preston, though frequent in many places, grows plentifully in the fields between the new reservoir and the delf. It is a member of that family which furnished a badge and a name to the renowned race of Plantagenet:

> "Memorial flower of a princely race."

The readers of the 'Chronicle' will remember the story how Geoffrey, Count of Anjou, father of Henry the Second, King of England, wore a sprig of Broom in his hat by way of a badge, and from it obtained the name of Plantagenet (the Latin name of the plant being *Planta genista*, the French *Plante genêt*), a name which several generations of his descendants bore. A recent work of great authority (the 'Encyclopædia Britannica') has given another version of the story. It says: "Fulk, the first Earl of Anjou, stung with remorse for some wicked action, went, as a work of atonement, in pilgrimage to Jerusalem, where, being soundly scourged with Broom twigs, which grew plentifully on the spot, he afterwards took the surname of Plantagenet, which was retained by his posterity." I am not disposed to accept the latter version; I adhere to the old story as told in the History of England, which I read in my schoolboy days; and I find the author of Tom Ingoldsby's Legends adopts the same version when he starts his story of the Brothers of Birchington with the lines—

"You are all aware that
On our throne there once sat
A very great king, who'd an Angevin hat,
With a great sprig of Broom, which he wore as a badge in it,
Named from this circumstance Henry Plantagenet."

I must not, however, dwell so long over a bit of Broom, or I shall be like my botanical friend, whom sometimes I compare with the hero of another legend of Ingoldsby's—

"Sir Thomas the Good,
Who, be it well understood,
Was a man of very contemplative mood,—
He would pore by the hour
O'er a weed or a flower,
Or the slugs that come crawling out after a shower;

Black-beetles and bumble-bees—bluebottle flies,
And moths were of no small account in his eyes;
An 'industrious flea' he'd by no means despise;
While 'old daddy long-legs,' whose 'long legs' and thighs
Passed the common in shape, or in colour, or size,
He was wont to consider an absolute prize."

At Ribchester Bridge we found the Spotted Dead-nettle (*Lamium maculatum*) growing plentifully on a bank on the north side of the river, near the bridge. On the south side, both above and below the bridge, the Soapwort (*Saponaria officinalis)* is very abundant, as indeed it is in many places between Ribchester Bridge and Preston. The Whorled Mint (*Mentha sativa*) grows on the south bank of the river below the bridge; and by the path to Sale Weel we observed on one of our visits one or two fine Bird-cherry trees (*Prunus Padus*).

BOTANICAL NOTES, NOTICES, AND QUERIES.

Pale Primroses.—'Phytologist,' vol. vi. p. 64.

If I may trust to analogy, H. B.'s quotation from Todd solves the difficulty, but, like many other good thoughts, it was thought or discovered *before*. Shakspere himself tells the reason why "they (Primroses) die unmarried ere they can behold bright Phœbus in his strength." I will not quote the residue, because H. B. knows it as well as I do.

Warton, in his notes and annotations on 'Lycidas,' where he quotes Drayton, Browne, Drummond, Watson, etc., uses the same words quoted in the 'Phytologist' as Mr. Todd's.

The original, whence all these allusions are derived, is in Ovid's "Metamorphoses," where this most ingenious poet describes the love of Apollo, or Phœbus, or the Sun, for the first and fairest of all his *flames*, Daphne, the beauteous daughter of old Peneus, one of the aquatic deities. This unsuccessful suit was invented by the crafty son of Venus, in requital of some slights received from Phœbus. The former shot the latter with one of his sharp poisoned arrows, which inflamed the great author of heat, and the unwilling nymph with another, which made her freezing cold, like the Snowdrop or the pale Primrose. Daphne vowed to die a maid, *i.e.* unmarried, and, being pursued by her ardent lover, she prayed that the earth might gape and devour her. The earth clung to her feet, which were soon rooted in the soil:

"Scarce had she finished, when her feet she found
Benumbed with cold and fastened to the ground;
A filmy rind about her body grows,
Her hair to leaves, her arms extend to boughs;
The nymph is all into a *laurel* gone,
The smoothness of her skin remains alone."

Ovid again, in the first fable of the tenth book, enumerates the trees which formed a grove about the celebrated musician Orpheus, when he went to the world below to recover Eurydice:

> "*Non Chaonis abfuit arbor,*
> *Non nemus Heliadum, non frondibus esculis altis,*
> *Nec tiliæ molles, nec fagus, et* INNUBA LAURUS."

> "Nor trees of Chaony (Chaonian Oaks),
> Nor Helian grove, nor foodful Esculus,
> Nor Linden soft, nor smooth-rinded Beech,
> *Unmarried Bays*, the brittle Hazel,
> Ash, whose spears we praise,
> Were absent."

Apollo loved Daphne, but she did not reciprocate his affection, and hence she is represented by the poets as being unmarried, or dying unwedded. This poetic fiction is perhaps the origin of the epithet "unmarried," applied to plants which love the shade, which the Primrose does and which the *Cowslip* does not, or the latter loves less to blush unseen than the former does.

The physical or actual history of the economy of the Primrose points to the same fact; its shade-loving propensity is the origin of the term "unmarried," so far as it is applicable to this early flower.

The whole Primrose tribe, though not shy flowerers, are not very productive of fruit. This is the case with most plants which increase readily by the roots. The Primrose and Oxlip readily increase their radical crowns; and when nature is prodigal in one extremity she is occasionally economical in the opposite direction of the plant.

The early-flowering Primroses rarely produce seed; they flower abundantly, but are like many plants which can live in the open air in England but never flower for want of sufficient light and heat, so early-flowering plants of this genus rarely produce seeds. Late-flowering Primroses mature the contents of their capsules.

The Primrose loves a cool shaded situation under a hedge, on the verge of a ditch, or in sheltered parts of woods. Here, like *Daphne*, they escape the fervent attentions of Apollo, and the consequence is they die unmarried, as Shakspere says, or they go to their graves unblest by any pledges of the warm attachment which generally exists between Phœbus and his numerous *paramours*.

The fiction, or fable, or common *saw* is poetical, but, like many other productions of the imagination, it may originally have derived its being from the natural circumstances and accidents of these plants.

THE INTERNATIONAL EXHIBITION.

AFRICAN VEGETABLE PRODUCTS.—The first packages which were delivered were from Liberia, the colony of liberated blacks; and some interest is attached to these unpretending-looking packages of Palm-oil and other articles of native produce, on account of their being the first arrivals. In this respect the liberated negroes contrast most favourably with the free and enlightened Republic which at one time held them in bondage. The Northern States of America have declined to send anything to the Exhibition; they have, no doubt, enough already on their hands in endeavouring to coerce the slaveholding section into the Union; but the spirit in which they have met the offer of the Commissioners to grant them space for exhibition in the "World's Fair" is by no means creditable to them. "At the last Exhibition," said one of the principal speakers, "we sent reaping machines; the sword is now our reaper, and the rebels are our harvest." Such a sword as is wielded by the North would certainly not be remarkable on account of its effectiveness, and, as to the rebels, they have first to catch them before they can send them for exhibition. It is a curious fact that the Southern States, denounced as rebels, have applied for space, and would send some contributions to London, but their claim has been refused, on the technical ground that they have not applied for space through commissioners appointed by any recognized Government—certainly a somewhat harsh proceeding, and not quite in keeping with that principle of impartial neutrality which has been decided upon by the Government. We have granted to the South belligerent rights; the Commissioners might surely have accorded exhibiting rights to the Confederacy, even though they are fighting for independence and State rights. As the North will not come to our Exhibition, and as the South must not be admitted, we shall probably examine with all the more interest the humble contributions of those whom both united to keep in bondage.

VEGETABLE PRODUCTS FROM ST. HELENA, NEWFOUNDLAND, ETC.—Closely following on the goods of Liberia has been a consignment from St. Helena, Prince Edward's Island, and Newfoundland. From Prince Edward's Island there will be a giant spar, the height of which will overtop the Monument of the Fire of London—a single tree—the largest perhaps that has ever been cut in the magnificent forests of that province. Unless it is placed under one of the domes, there is no part of the building where this lordly representative of the Pine-forests can be exhibited, and it will, in all probability, be used as a flag-staff outside the Exhibition, or perhaps in the grounds of the Horticultural Society.

WOODS FROM TASMANIA.—There will also be, in another part of the building, a trophy from Tasmania, consisting of a column nearly one hundred feet high, made of native woods, capped with the flag of the colony, and surrounded at the base with ornaments of woods, worked up into models of whale-boats and whaling-apparatus. The column will have a winding staircase within it, and will, no doubt, attract considerable attention.

ATROPA BELLADONNA. (*Deadly Nightshade.*)

There is growing in my garden a magnificent plant of this species, in height seven feet, and in circumference ten feet; the branches are fifteen in number, and about the size of a stout walking-stick. It blossomed in August, and was covered with berries until this month. It is now on the decline; but I observe that most of the leaves have been eaten by some particular kind of caterpillar,* and the berries I have noticed the *thrush* eating. These facts may be worth recording in the 'Phytologist,' and to show that, although this plant is so deadly poisonous to man, it affords food to birds and insects. S. BEISLY.

Sydenham, October, 1861.

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* The name of the caterpillar I should like to know.

CLAYTONIA ALSINOIDES.

Extract from Correspondence.—I have to tell you of another station for the *Claytonia alsinoides*, which grows in the woods of Murrayshall, about three miles east from Perth city; it is also about three miles in a direct line (south-east) from the Station, in the wood of Scone, where the plant abounds. We have now in Scotland, and near Perth, two well-authenticated localities for this succulent plant, and one in England. What can be said against its being a true native of "British soil"?

Perth. JOHN SIM.

[Can any reader of the above answer our correspondent's question?]

THE ISLE OF MAN.

Clematis Vitalba and *Convolvulus sepium* are both wanting in our Manks Flora. The Primrose in spring, the Foxglove in summer, the Heath in autumn, and the Furze or Gorse "with golden baskets hung" all the year round, are pretty well the only flowers sufficiently massed to make much of a show. Here, upon our wild storm-beaten cliffs, *Hypericum pulchrum* and *Hypericum humifusum* exist in tolerable abundance, while both *Hypericum perfoliatum* and *hirsutum* are entirely wanting. S.

RARE PLANTS OF BEDFORDSHIRE.

(*From Gough's 'Camden.'*)

Anemone apennina, Mountain Wood Anemony: in a wood near Luton Hoe (see Abbot's Fl. Bed. 119). *Astragalus arenarius*, Purple Mountain Milkwort: on both sides of Barton Hills, four miles from Luton. *Bupleurum tenuifolium*, Least Hare's-ear: in meadows and pastures near Eltelsley, in the road from Cambridge to St. Neots. *Convallaria majalis*, Lily Convally, or May Lily: in woods near Woburn, from whence the London markets are in general supplied with this plant.* *Dianthus deltoides*, Maiden Pink: on Sandy Hills, not far from the Roman camp. *Gentiana Amarella*, Autumnal Gentian, or Fellwort: on Barton Hills, not far from Luton, and upon a waste chalky ground as you go out of Dunstable towards Gorhambury Hills. *Hippocrepis comosa*, Tufted Horseshoe Vetch: on chalky hills everywhere. *Melampyrum cristatum*, Crested Cow-wheat: in woods, particularly near Blunham, in Wixamtree Hundred. *Monotropa Hypopithys*, Bird's Nest, smelling like Primrose roots: in woods. *Pimpinella major*, Great Burnet Saxifrage: in woods and hedges of a limestone soil. *Ribes nigrum*, Black Currants, or Squinancy berries: in wet woods and banks of rivers; at Blunham and elsewhere. *Serapias longifolia grandiflora*, White-flowered Bastard Hellebore: in woods frequent. *Trifolium ochroleucum*, Yellow-flowered Trefoil: in chalky meadows and pastures; Potton, Everton, Clapham (Abbott, 162).

VICIA OROBUS.

This plant, which grows so plentifully in many parts of Merionethshire, especially round about Bala and between Dolgelly and Traws-fynydd, "was observed by Dr. Burgess in great plenty on a bank facing the Tweed, on the north side, about a quarter of a mile below the public-house at the Beild:" *Lightfoot.* "Near Longformacus, Berwickshire:" *Rev. A. Baird.* —Johnston's 'Flora of Berwick,' p. 160.

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* Aspley Wood, rare, (Abbott, 76). Can any reader inform us if the rarer Br. species, *Convallaria bifolia*, grows in either of these woods?—ED.

The elevation in some parts of Wales exceeds the altitude assigned in the 'Cybele,' about which the author is, as usual, uncertain. He is "not quite prepared to say with certainty whether most of the stations are below or above from fifty to two hundred yards."

In Wales, this fine specimen is pascual, and possibly sylvan. It is rupestral also when the rock just crops out, or is thinly covered with a grassy turf. It will grow where the soil is not more than a few inches deep; for both its roots and stems are rather horizontal than perpendicular. ALPHA.

YORKSHIRE MOSSES.

By the way I gathered *Fissidens Taxifolii* here on Saturday; is it considered a rarity?—I am not well versed in geography of Mosses. Also *Bartramia fontana* on the moors last summer, in fine fruit.

CHARLES P. HOBKIRK.

EPIPACTIS PURPURATA AND E. MEDIA.—Phytol. vol. vi. p. 62.

Mr. Wollaston asks, "Is *E. media* a parasite, or only a synonym of *E. purpurata?*" I presume that *E. media*, Fr., and *E. ovalis*, Bab., are equivalents, or synonyms of the same plant. In the communication above quoted there appears to be a slight error. In line 3 from the end of the page it is printed, "Are *these* not sufficient characters," etc. As there were no antecedent characters, I suggest that the word *these* should be *there;* and I have no doubt but that it was thus written, though misprinted *these*. The subject is not exhausted. TAU.

JACOB RAYER.

A contribution to the articles on defunct London Botanists, viz. a brief memoir of Mr. Jacob Rayer, the discoverer of *Althæa hirsuta*, etc., is postponed to another month.

EXCHANGE OF PLANTS.

Mr. B. M. Watkins, of Glewstone, near Ross, Herefordshire, wishes to obtain a few correctly-named British Mosses, in exchange for an equal number of specimens of flowering plants, which may be selected from Mr. W.'s Lists in 'Phytologist' for June, 1861, p. 188, and for February, 1862, p. 61.

Communications have been received from

W. Pamplin; Walter W. Reeves; James Lothian; John Sim; S. Beisly; W. Ashley; J. G. Baker; J. S. M.; B. M. Watkins; W. P.

RECEIVED FOR REVIEW.

Notes on Books.

ERRATA.—Vol. V. p. 274, for "*Epilobium latifolium*" read *Epilobium angustifolium*, and add *E. hirsutum*. The tree referred to as a remarkable instance of the union of two branches, at p. 333, is a Common Plane or "Sycamore." Specimens of the Ranunculus referred to at p. 332 shall be sent in the flowering season.

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